ABSTRACT

An aromatic-polyether-type ion conductive polymer membrane having improved mechanical strength is provided.

An aromatic-polyether-type ion-conductive ultrahigh molecular weight polymer having an ion exchange capacity of 0.1 meq/g or higher and a structure comprising an aromatic-polyether-type ultrahigh molecular weight polymer in which an acid group introduced, said aromatic-polyether-type ultrahigh molecular weight polymer having at least one structural unit selected from those represented by the following formulas (1) and (2) and the sum of the number a of the structural unit of the formula (1) and the number b of the structural unit of the formula (2) being 2 or larger:

$$\frac{\left[\left(Ar^{1}O\right)_{m}Ar^{1}\right]}{\left(Ar^{2}O\right)_{m}Ar^{2}}$$

$$\frac{\left[\left(Ar^{2}-O\right)_{n}Ar^{2}\right]}{\left(Ar^{2}-O\right)_{n}Ar^{2}}$$